

WHAT IS CLAIMED IS:

1. A lens apparatus comprising:

a lens unit which forms an optical image;

a barrier member which can be moved open and close;

a driving member that drives the barrier member into an open position by rotating in one direction around an optical axis, and drives the barrier member into a close position by rotating in another direction around the optical axis;

an energizing member which energizes the driving member in the one direction; and

a barrel which is constructed around the optical axis,

wherein the driving member and the barrel move in the direction of the optical axis relatively; and

wherein the barrel has a first guide portion that rotates the driving member in the one direction, and a second guide portion that rotates the driving member in the other direction while resisting an energizing force of the energizing member, according to a relative position change with the driving member; and

wherein the driving member drives the barrier member into the open position by rotating in the one direction by the first guide portion when the driving member can not rotate into a position corresponding to the open position of the barrier member by the energizing force of the energizing member.

2. The lens apparatus according to claim 1, wherein the barrel has a third guide portion that guides the driving member to the second guide portion according to the relative position change of the driving member.

3. A lens apparatus comprising:

a lens unit which forms an optical image;

a barrier member which can be moved open and close;

a driving member that drives the barrier member into an open position by rotating in one direction around an optical axis, and drives the barrier member into a close position by rotating in another direction around the optical axis;

a resistive member which impedes the rotation of the driving member; and

a barrel which is constructed around the optical axis,

wherein the driving member and the barrel move in the direction of the optical axis relatively; and

wherein the barrel has a first guide portion that rotates the driving member in the one direction and a second guide portion that rotates the driving member in the other direction, according to a relative position change with the driving member.

4. The lens apparatus according to claim 3, wherein the barrel has a third guide portion that guides the driving member to the second guide portion according to the relative position change with the driving member.

5. A lens apparatus comprising:

a lens unit which forms an optical image;

a lens holding member which holds the lens unit and can be moved in the direction of the optical axis;

an energizing member which energizes the lens holding member in the one direction around the optical axis;

a supporting member that has a cam portion that converts the rotation of the lens holding member around the optical axis into motion in the direction of the optical axis, and supports the lens holding member; and

a barrel which is constructed around the optical axis,

wherein the driving member and the barrel move in the direction of the optical axis relatively; and

wherein the barrel has a first guide portion rotating the lens holding member in the one direction, and a second guide portion that rotates the lens holding member in the other direction around the optical axis, according to a relative position change with the supporting member; and

wherein the lens holding member rotates a predetermined amount in the one direction by the first guide portion and drives in the direction of the optical axis by the cam portion when the lens holding member can not rotate the predetermined amount in the one direction by an energizing force of the energizing member.

6. The lens apparatus according to claim 5, wherein the

barrel has a third guide portion that guides the lens holding member to the second guide portion according to the relative position change with the supporting member.

7. A lens apparatus comprising:

a lens unit which forms an optical image;

a lens holding member which holds the lens unit;

a supporting member that has a cam portion that converts the rotation of the lens holding member around the optical axis into motion in the direction of the optical axis, and supports the lens holding member;

a resistive member which impedes the rotation of the lens holding member around the optical axis; and

a barrel which is constructed around the optical axis, wherein the driving member and the barrel move in the direction of the optical axis relatively; and

wherein the barrel has a first guide portion that rotates the lens holding member in one direction around the optical axis and a second guide portion that rotates the lens holding member in another direction around the optical axis, according to a relative position change with the supporting member.

8. The lens apparatus according to claim 7, wherein the barrel further has a third guide portion that guides the lens holding member to the second guide portion according to the relative position change with the supporting member.

9. A camera comprising:

the lens apparatus according to claim 1; and  
an image pickup device which receives light passing through the lens apparatus and photoelectrically converts an image formed by the lens apparatus.

10. A camera comprising:

the lens apparatus according to claim 3; and  
an image pickup device which receives light passing through the lens apparatus and photoelectrically converts an image formed by the lens apparatus.

11. A lens apparatus comprising:

a lens unit which forms an optical image;  
a barrier member which can be moved open and close;  
a driving member that drives the barrier member into an open position by rotating in one direction around an optical axis, and drives the barrier member into a close position by rotating in another direction around the optical axis;

an energizing member which energizes the driving member in the one direction; and

a barrel which is constructed around the optical axis and has a first guide portion and a second guide portion,

wherein the driving member and the barrel move in the direction of the optical axis relatively;

wherein the driving member makes contact with the

second guide portion by receiving an energizing force of the energizing member with the relative movement of the driving member and the barrel; and

wherein the first guide portion is formed along the second guide portion.

12. A camera comprising:

the lens apparatus according to claim 11; and

an image pickup device which receives light passing through the lens apparatus and photoelectrically converts an image formed by the lens apparatus.